

# **CLEANING SOLUTION AND METHOD FOR SELECTIVELY REMOVING LAYERS IN A SILICIDATION PROCESS**

## **ABSTRACT OF THE DISCLOSURE**

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A cleaning solution selectively removes a titanium nitride layer and a non-reacting metal layer. The cleaning solution includes an acid solution and an oxidation agent with iodine. The cleaning solution also effectively removes a photoresist layer and organic materials. Moreover,  
10 the cleaning solution can be employed in tungsten gate electrode technologies that have been spotlighted because of the capability to improve device operation characteristics.